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SCIENTIFIC NOTE

THE IDENTITY OF *CHELANOPS SERRATUS* MOLES (PSEUDOSCORPIONIDA: CHERNETIDAE)

Chelanops serratus was described on the basis of a single individual found "on the window pane of the Pomona College greenhouse" [Pomona, Los Angeles County, California] (Moles, M. M.[sic] 1914. J. Entomol. Zool., 6: 187–197). The specimen was mounted on a slide, which was said to be "so poorly made" [probably by a student at Pomona College] that it was impossible to take measurements of any parts but the palps. The whereabouts of that holotype is now unknown, and it must be presumed lost. Nevertheless, the species was described in sufficient detail that many important characters are clear, especially of the palp, which was illustrated (1914: fig. 3). It is obvious that this is the same pseudoscorpion species as that later described by Chamberlin as *Dinocheirus sicarius* (1952, Bull. Amer. Mus. Nat. Hist., 99: 259–312), from the Frances Simes Hastings Natural History Reservation, Monterey County, California. This conclusion is supported by my own study of numerous representatives of the species from many locations in California, from San Diego County in the south to Modoc County in the north.

Dinocheirus serratus (Moles)

Chelanops serratus Moles, 1914: 193, fig. 3; Moles, M. & W. Moore. 1921. J. Entomol. Zool., 13: 7.

Dinocheirus? serratus (Moles): Hoff, C. C. 1958. Amer. Mus. Novitates, 1875: 28.

Dinocheirus serratus (Moles): Harvey, M. S. 1991. Catalogue of the Pseudoscorpionida. Manchester Univ. Press: 573.

Dinocheirus sicarius Chamberlin, 1952: 279–292, figs. 6-9; Hoff 1958: 28; Harvey 1991: 573 (complete synonymy to 1989). NEW SYNONYMY

Although Moles's specimen of *Chelanops serratus* was apparently badly damaged, she was able to provide enough detail to allow some comparison with other chernetids in California. A glance at her illustration of the palp immediately suggests a close relationship to *Dinocheirus sicarius* Chamberlin. Though Moles did not mention the sex of her specimen, it is evident that it was a male, as the palp is like that of the holotype of *D. sicarius* (see Figs. 1, 2). The shapes and proportions of the segments are very similar—distinctive are the robust palpal segments, especially the chela of the male, and the unusual configuration of the medial side of the femur. The latter was described by Moles (1914: 195), "femur - - - pedicellate, inner margin almost straight at base, then suddenly concave to tip," and by Chamberlin (1952: 280), "unique angular protuberance on the inner or subdorsal face of the palpal femur of the male." The form of the palpal femur is diagnostic for this species; I do not know of any other chernetid that looks like this. Actually, there is considerable variation in size and proportions of the palpal segments, especially in males, so that the chela may be more or less stout and the protuberance of the femur more or less pronounced (Chamberlin 1952: 282; personal observation).

Sizes are comparable: Moles gave only the length of the pedipalp, 3 mm (1914:

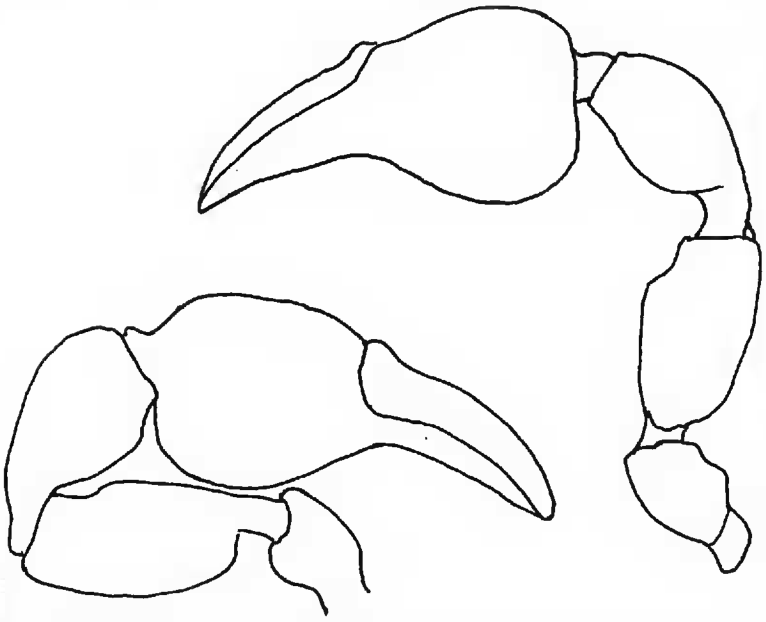

Figure 1. *Chelanops serratus*, outline of palp of holotype (redrawn from Moles 1914: fig. 3).
Figure 2. *Dinocheirus sicarius*, outline of palp of holotype male (redrawn from Chamberlin 1952: fig. 6B).

193); this compares well to 3.15 mm, the sum of the average lengths of the palpal segments reported by Chamberlin (1952: 284). Setae of the palps are similar: Chamberlin characterized them as "thickened and variously denticuloclavate" (p. 282); in profile, these appear "saw-like" (serrate), as described by Moles (p. 195). Moles described the cheliceral galea, or spinneret, as "small and transparent" (p. 195), while Chamberlin showed that of the male to be smaller and more slender than that of the female (1952: fig. 6E, F). Moles and Chamberlin agreed that the carapace is granulate, but Moles (p. 193) apparently erred in stating that there are "no eye spots" (2 distinct eyespots are present) and only "one distinct median suture" (2 transverse furrows are present); it is understandable that she might not have seen these details on the damaged specimen she was studying.

Altogether, it is clear that Moles and Chamberlin were dealing with the same species and that *Dinocheirus sicarius* Chamberlin (1952) is a junior synonym of *Chelanops serratus* Moles (1914). It is also quite clear, from the very detailed description by Chamberlin, that the species is a representative of the genus *Dinocheirus* Chamberlin (see also Muchmore, W. B. 1974. J. Arachnol., 2: 34).

The known range of *Dinocheirus serratus* now extends from San Diego County, California northward to Columbia County, Oregon (see below and Benedict, E. M. & D. R. Malcolm. 1982. J. Arachnol., 10: 100); there is also an unsubstantiated record from the Great Salt Lake Desert, Utah (Gering, R. L. 1956. p. 50 *in*: Woodbury, A. M., [ed.] Ecological Check Lists. The Great Salt Lake Desert Series, Univ. of Utah, Dugway). I have made detailed studies on the following specimens.

Material Examined.—CALIFORNIA. *ALAMEDA Co.*: Berkeley, nest of *Neotoma fuscipes* Baird, Nov 1926, 1 male, 3 females. *COLUSA Co.*: 4 km W of Stonyford, *Neotoma* nest at base of oak, 30 Apr 1980, F. G. Andrews, 6 males, 9 females, 6 nymphs. *MODOC Co.*: Big Sage Reservoir, *Neotoma* nest at base of *Juniperus occidentalis* Hooker, 31 May 1978, F. G. Andrews, 1 male. *RIVERSIDE Co.*: Mt. San Jacinto, 1250 m, litter from hollow of fallen oak, 28 Mar 1978, K. W. Cooper, 1 male, 2 females, 5 nymphs. *SAN BERNARDINO Co.*: E of Summit [only 40 km from Pomona], damp *Neotoma* nest, 5 Jun 1979, K. W. Cooper, 1 male, 3 females, 4 nymphs. *SAN DIEGO Co.*: 1.5 km E of Leucadia, *Neotoma* nest in chaparral, very dry, 8 Aug 1979, K. W. Cooper, 7 males, 5 females, 4 nymphs. (All deposited in Florida State Collection of Arthropods, Gainesville).

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William B. Muchmore, *Department of Biology, University of Rochester, Rochester, New York 14627.*

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